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SAFETY NOTICES

Warning: A Personal Locator Beacon (PLB) is an emergency radio beacon;

Use only in situations of grave and imminent danger to life.

CAUTION: False alerts endanger lives and cause expensive disruption to Search and Rescue services, deliberate misuse of the PLB could result in penalty and fine.

CAUTION: Spring action antenna deployment; tilt the PLB away from your face when deploying the antenna.

CAUTION: Do not dismantle the PLB, contains no user-serviceable parts.

CAUTION: Contains lithium batteries. Do not incinerate, puncture, deform, short-circuit or recharge.

CAUTION: Dispose of a used PLB in accordance with local waste disposal regulations. Refer to End of Life Statement.

CAUTION: Avoid using chemical solvents to clean the PLB as some solvents can damage the case material.

CAUTION: Radio licensing, the PLB is a radio transmitter. Some administrations may require that the user holds a valid radio license to cover its ownership and use.

CAUTION: The PLB will not float; fit a lanyard restraint when near water to avoid loss.

Radio Frequency Exposure Warning

WARNING: The PLB emits low levels of radio frequency radiation; avoid handling the antenna once activated.

REGISTRATION

The PLB must be promptly registered with the appropriate National Authority. Failure to register the PLB could delay a Search and Rescue (SAR) response and maybe unlawful.

Your PLBs unique identification information

Stick copy Programming label here

INTRODUCTION

Thank you for purchasing the Fastfind Personal Location Beacon (PLB). When carrying a Fastfind you enjoy the reassurance of a last resort safeguard against any life threatening incidents that may occur anywhere in the world. If you find yourself in a remote area without any other form of emergency communication, on land or at sea, your Fastfind can call for help.

Fastfind will transmit a unique emergency message identifier via the Cospas/Sarsat satellite system which can determine your location anywhere on the earth's surface. In most cases the emergency alert is first received within 5 minutes of activation but depending on satellite coverage at the time this can sometimes extend to 45 minutes.

When the emergency alert message is received at a Rescue Co-ordination Centre (RCC) it is cross reference using the unique identifier (often called Hex ID) against your registration details. Detail of the alert is forwarded to the appropriate local Search And Rescue (SAR) teams. Keeping your registration details up to date is critical to ensuring a quick SAR response.

Fastfind has a secondary 'homing' transmitter which allows SAR teams to direction find or 'home' on it once they arrive on scene. Fastfind has a storage life of 5 years and once activated will continue to transmit emergency alerts for a minimum of 24 hours.

For further information visit Cospas Sarsat on line at www.cospas-sarsat.org and www.mcmurdo.co.uk. The 'frequently asked questions' section is a good place to start.

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GPS VERSION

Fastfind 210 has a built-in Global Positioning System (GPS) receiver to potentially reduce the time for SAR teams to arrive on scene. If the sky view is obscured by tree canopy or a steep-sided canyon, the GPS may take longer, or possibly fail to obtain a position fix. In this case distress alert may be transmitted without GPS location information.

RADIO LICENSE

U.S. users are not required to hold a radio license for a PLB. Other national administrations may require the PLB user to be licensed, for further advice check with your dealer or contact your national communications licensing authority.

USER REGISTRATION

The PLB's unique identifier must be registered with the national authority indicated in the white area on the rear of the PLB. Complete the user registration form and return it to the address indicated on the form. Some national authorities allow online registration, a good starting place is the online emergency beacon registration database called IBRD at www.406registration.com. IBRID will not accept all registrations and were appropriate you will be re-directed to your national authority. Some countries (including USA and UK) will send the registered user a DECAL label which you are obliged to fit to the rear of the PLB as 'proof of registration'.

Country name & Hex ID

Battery expiry date

Fit "proof-of-registration" DECAL label here

OVERVIEW

Red pull handle

Pull to expose antenna

Only pull in an emergency

Pulling breaks the plastic anti-tamper seal that can not be reset by the user.

White indicator Light

Flashes every 3 seconds once PLB active Long flash every 50 seconds means satellite transmission OK

For PLB 210 only

Flashes each second when GPS is searching
3 rapid flashes means GPS location sent

Antenna

Unwraps and stands vertical once cover is off

GPS antenna zone

(PLB 210 only)

Do not obstruct

Needs a clear view of the sky for best operation

ON button

Press once to activate PLB.

When the PLB is on, push the ON button again to make the indicator light flash a SOS signal pattern.

TEST / OFF button

Push and hold to start the self test feature, flash of white light indicates that the self test is successful.

Once PLB active

Hold TEST to turn PLB off

Eyelet for lanyard

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ACTIVATING THE FASTFIND PLB

Only ever activate in situations of grave or imminent danger.

1) Flip up the red pull handle, Pull the antenna cover off

IMPORTANT

The antenna cover is an anti-tamper seal, once broken it can not be refitted

2) Hold the end of the antenna. Unwrap the antenna until it stands vertical

CAUTION;

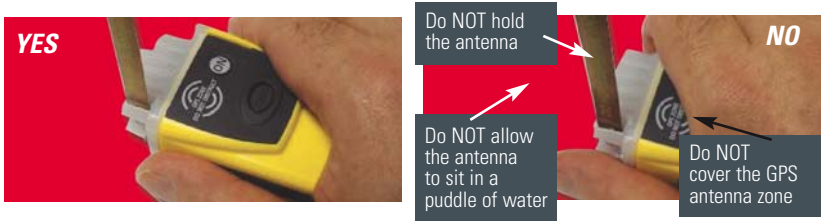
Spring action antenna deployment; tilt the PLB away from your face before deploying the antenna.

3) Press the ON button

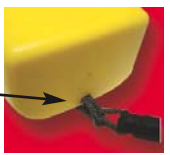
Transmission of the first emergency alert message takes place 50 seconds after initial activation, in the event of an accidental or false activation this delay allows time for the user to turn off the Fastfind before the first alert is transmitted.

DEPLOYING THE PLB

- Always orient the PLB so that it is horizontal with the antenna standing vertical
- If it's windy, rotate the PLB so that the indicator faces into the wind



Use around water



The Fastfind will NOT float but is waterproof to 10 meters submersion for short periods. To avoid loss if dropped into water fit a retaining lanyard through the eye hole in the base of the PLB and fasten it securely to your clothing or personal floatation device.

The PLB is not a substitute for an EPIRB that may be required under maritime regulation.

Note: In some countries the Fastfind PLB maybe sold with an auxiliary flotation device but is not designed to float in an upright position or transmit a distress alert when floating in water.

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INDICATOR LIGHT

The indicator light will start flashing immediately the Fastfind is activated

FASTFIND 200 Light indication

PLB ACTIVE
1 flash every 3 seconds

SATELLITE TRANSMISSION OK
Large flash once every 50 seconds

FASTFIND 210 WITH GPS Light indication

GPS SEARCHING
2 flashes every 1 second

SATELLITE TRANSMISSION SENT WITH GPS LOCATION OK
Sequence repeats every 50 seconds

PLB ACTIVE GPS LOCATION OKAY
1 flash every 3 seconds

FLASH SOS FEATURE

When the PLB is active, pressing the ON button will cause the indicator light to flash a Morse code SOS pattern. This can be used to attract attention after nightfall. The SOS pattern is repeated four times on each press.

To conserve battery life a maximum of 30 presses are allowed, after which this feature is disabled.

DE-ACTIVATION AFTER USE

To turn off the *FAST* FIND, press and hold the TEST button for several seconds until the indicator light stops flashing.

We recommend the antenna is re-wound under the plastic peg. If possible, the yellow antenna cover should be pushed back in place and temporarily taped over, to avoid accidentally pressing of the ON button.

Important

As soon as practically possible the PLB should be returned to a service agent, who will fit a new antenna cover and check the battery condition. If the PLB was active for more than a few hours we recommend fitting a fresh battery to ensure the full 24 hour operational life is still available.

SELF TEST

Self-test verifies operation of the PLB by checking all key features including battery and alert transmitters.

TEST button

Push and hold the SELF TEST button for a minimum of 2 seconds, the indicator light will flash once to indicate the start of the self test sequence.

After a few seconds, a good self-test will result in the indicator light flashing a number of times in quick succession depending on past battery usage;

- fresh battery self test pass
- minimum usage self test pass
- medium usage self test pass

NO FLASH self test fail PLB requires service

The PLB will switch off automatically when the self-test has completed

Important

Each self-test draws small amounts of energy from the battery pack. Unnecessary testing of the PLB may subsequently reduce the run time of the PLB in an emergency. On average, the PLB should only be self tested 12 times per year, or a total of 60 times across the 5 year battery lifetime.

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GPS POSITION ACQUISITION TEST

When testing the GPS, take the PLB outside into an open space with a clear view of the surrounding sky.

Self testing of the in-built GPS is restricted to a maximum of 10 tests throughout the 5 year storage life of the battery. Once all the tests have been used up, attempting further tests will cause the indicator light to flash 4 times in quick secession and the PLB to power off.

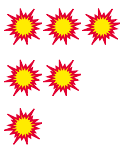
The GPS self-test feature can only be accessed after first completing a standard PLB self-test routine;

Push and hold the TEST button for a minimum of 2 seconds, the indicator light will flash once to indicate the start of the self test sequence. Release the TEST button.

After a few seconds the standard self-test routine will complete and should result in the indicator light flashing a number of times in quick succession depending on the past battery usage.

Immediately after the indicator light stops flashing, hold down the TEST button for 30 seconds to start the GPS test routine. Throughout the period of the GPS testing, the indicator lamp will flash slowly for up to 5 minutes.

A successful GPS position acquisition test will result in the indicator light flashing a number of times in quick succession.



GPS self test pass
10 – 4 GPS tests remaining

GPS self test pass
3 – 1 GPS tests remaining

GPS self test pass
No GPS tests remaining

Important

To preserve battery life, GPS testing is restricted to a maximum of 10 tests throughout the 5 year battery life. Once used up, further GPS tests are prohibited.

CHOOSING THE BEST LOCATION

The *FAST* FIND works best under an unobstructed view of the sky. This ensures the emergency alert message reaches the satellite system and gives the GPS receiver (Fastfind 210) the best signals to work with.

If it's not possible to pick a location with an unobstructed view of the sky, then try to maximize the amount of sky available.

Tree canopy degrades performance. Find a clearing with as much sky view as possible.

Ravines, canyons, caves and overhangs should be avoided if at all possible.

Stay put - Rescue teams expect you to remain stationary. Trying to walk for help is generally not advised and will probably slow down the rescue effort.

On foot

If you must walk for help, ensure the Fastfind antenna remains vertical.

Aircraft

A PLB is often used as an additional carry-off safety device. The PLB should NOT be activated aboard an aircraft. The signal will be blocked by metalwork and the PLB may be damaged by any impact. Activate the PLB after landing, away from the aircraft, as it may cause shadowing.

Vehicles

The PLB will not work well inside a vehicle due to metalwork shadowing. Exit the vehicle, activate the PLB, and place it on the roof, the hood, or just on the ground away from the vehicle.

Land

Find the best sky view, then place the PLB on flat ground. Keep the antenna pointing towards the sky and ensure wind doesn't knock the PLB over. Do NOT allow the antenna to sit in a puddle of water.

Aboard ship

Place the PLB flat on the deck, choosing a position with the best sky view.

Liferaft

Try to keep the PLB flat and try to elevate the PLB to avoid bodies blocking the signal. Consider holding the PLB outside the canopy. But first attach a lanyard between the PLB and your clothing to avoid loss of the PLB.

Lifejacket

Attach a lanyard cord between the PLB and clothing to avoid loss of the PLB. Hold the PLB flat on top of the life vest and try to keep it above any wave wash. Keep the antenna vertical. Avoid holding the antenna, or blocking the GPS zone with your hand.

False alerts

If the PLB has been accidentally activated, or if rescue have been effected before arrival of the rescue services:

- Switch off the PLB and notify the appropriate rescue services or authorities at the earliest possible time.
- Contact the rescue services, coastguard, or police by radio or telephone to advise them of the false alert.

  In the U.S. call 1-800-851-3051

  In the UK call MRCC Falmouth
  +44 1326 317575

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TRANSPORTATION

Passenger Aircraft;

These products contain small lithium metal batteries. They can normally be carried on board passenger aircraft as a personal item in carry-on baggage. McMurdo always recommends declaring the PLB to airline staff at check in, in the same way you would for a laptop PC or video camera.

As air cargo;

These products contain small lithium metal batteries. Due to the overall low level of lithium content they are not restricted as air cargo under IATA SP 188 - PI 970, always check with the carrier concerned for any additional restrictions that could apply.

END OF LIFE STATEMENT

At the end of the products useful life, it is vital that the battery is removed from the main body of the PLB to prevent false alerts. False alerts cause expensive disruption to Search and Rescue services and may endanger lives as a consequence.

Safe disposal

Contains traces of lithium, may contain lead and brominated flame retardants (BFRs), both in the housing material and circuit boards.

DO NOT INCINERATE

McMurdo strongly recommends that this PLB product is disposed of in a sensible and considerate manner. For example, do not simply discard the product in the domestic waste. Instead take it to a civil recycling facility, or contact McMurdo for advice.

FASTFIND 200, 210

STANDARDS APPLIED	COSPAS-SARSAT T.001/T.007 class2 RTCM SC110 STD 11010.2 ETSI EN 302-152-1 AS/NZS 4280.2 NSS-PLB06
ENVIRONMENTAL	
Exterior Finish	Highly visible yellow
Sealing	Temporary immersion to 10m (30 ft) for 5 mins. (IP 58, IPX7)
Operating temperature	Class 2, -20°C to +55°C (-4°F to +131°F)
Altitude	MIL-STD-810E (10,000 feet)
BATTERY	
Battery Type	9V Lithium Metal
Battery storage	5 years
Battery replacement	By service centre
Battery use	Logged by microcontroller.
OPERATION	
Activation	Three stage manual activation
Self test	Tests transmitters, battery and light
SOS flash light	Morse code SOS pattern (30 operations allowed)
TRANSPORTATION	
Air cargo	UN 3091, not restricted, IATA SP 188 - PI 970

ELECTRICAL	
406.037 MHz transmitter	± 1KHz, 5W ± 2dB
121.5 MHz transmitter	± 3KHz, 50mW ± 3dB PERP
Homer sweep direction	UP or DOWN
Transmit Antenna	Deployable flexible vertical blade
Programming interface	Optical Infra-red link
PHYSICAL	
Fast Find 200, 201	Category 2, will not float
Size (D x W x L)	34 x 47 x 106 mm (1.34" x 1.85" x 4.17")
Weight	150g (5.3 oz)
GPS	(Fast Find 210 only)
Maximum number of satellites tracked	16
Receive Antenna	Ceramic Patch
GPS Self test	Position acquisition test (10 operations allowed)
PART NUMBER	
91-001-200A	Fast Find 200 PLB retail pack
91-001-210A retail pack	Fast Find 210 PLB (with GPS)

FAST FIND 200, 210 models do not float and are not recommended for use on or in water unless provided with an auxiliary flotation device.

A Fast Find PLB is not an ELT or an EPIRB and does not meet the regulatory requirements for an ELT or an EPIRB.